In the Claims

Claim 1 (Currently amended). A <u>nano</u>particle comprising a complex of chitosan, or a chitosan derivative; a lipid; and a polynucleotide.

Claim 2 (Cancelled).

Claim 3 (Currently amended). The <u>nano</u>particle of claim 1, wherein said polynucleotide encodes a cytokine.

Claim 4 (Currently amended). The <u>nano</u>particle of claim 1, wherein said polynucleotide encodes interferon gamma.

Claim 5 (Currently amended). A composition comprising a <u>nano</u>particle and a pharmaceutically acceptable carrier, wherein said <u>nano</u>particle comprises a complex of chitosan, or a chitosan derivative, a lipid, and a polynucleotide.

Claim 6 (Cancelled).

Claim 7 (Previously presented). The composition of claim 5, wherein said polynucleotide encodes a cytokine.

Claim 8 (Previously presented). The composition of claim 5, wherein said polynucleotide encodes interferon gamma.

Claim 9 (Cancelled)

Claim 10 (Currently amended). A method for delivery and expression of a polynucleotide within a mammal, said method comprising administering a <u>nano</u>particle to the mammal, wherein

said <u>nano</u>particle comprises a complex of chitosan, or a chitosan derivative, a lipid, and a polynucleotide, wherein said polynucleotide is expressed in the mammal.

Claim 11 (Cancelled).

Claim 12 (Previously presented). The method of claim 10, wherein said polynucleotide encodes a cytokine.

Claim 13 (Previously presented). The method of claim 10, wherein said polynucleotide encodes interferon gamma.

Claims 14-15 (Cancelled)

Claim 16 (Previously presented). The method of claim 10, wherein said particle is administered within a composition comprising a pharmaceutically acceptable carrier.

Claim 17 (Previously presented). A method for enhancing interferon-gamma expression to regulate the production of cytokines secreted by T-helper type 2 (Th2) cells, said method comprising administering an effective amount of a particle to a mammal, wherein said particle comprises chitosan, or a chitosan derivative, a lipid, and a polynucleotide encoding interferon-gamma, and wherein said polynucleotide is expressed, thereby producing interferon-gamma in the mammal.

Claim 18 (Previously presented). The method of claim 17, wherein the mammal is human.

Claim 19 (Previously presented). The method of claim 17, wherein the mammal is suffering from asthma.

Claim 20 (Previously presented). The method of claim 17, wherein said particle is administered to the respiratory tract of the mammal.

Claim 21 (Currently amended). A method for producing a nanoparticle comprising a complex of chitosan, or a chitosan derivative thereof, a lipid, and a polynucleotide, said method comprising mixing said polynucleotide, said lipid, and said chitosan or chitosan derivative, to form said nanoparticle.

Claims 22-23 (Cancelled)

Claim 24 (Currently amended). The method of claim 10, wherein said nanoparticle is administered intranasally.

Claim 25 (Currently amended). The nanoparticle of claim 1, wherein said lipid is a cationic lipid.

Claim 26 (Currently amended). The nanoparticle of claim 1, wherein said nanoparticle comprises chitosan.

Claim 27 (Currently amended). The nanoparticle of claim 1, wherein said nanoparticle comprises a chitosan derivative.

Claim 28 (Currently amended). The nanoparticle of claim 1, wherein said lipid is a phospholipid.

Claim 29 (Currently amended). The nanoparticle according to claim 1, wherein said polynucleotide is surrounded by a monolayer of said lipid.

Claim 30 (Currently amended). The method according to claim 10, wherein said nanoparticle comprises a chitosan derivative.

Claim 31 (Previously presented). The method according to claim 10, wherein the mammal is human.

Claim 32 (Currently amended). The method according to claim 10, wherein said nanoparticle is administered to the respiratory tract of the mammal.

Claim 33 (Previously presented). The method according to claim 17, wherein said particle is administered intranasally.

Claim 34 (Previously presented). The method according to claim 17, wherein said particle comprises a chitosan derivative.

Claim 35 (Previously presented). The method according to claim 21, wherein said polynucleotide encodes interferon gamma.

Claim 36 (Currently amended). The method according to claim 21, wherein said nanoparticle comprises a chitosan derivative.

Claim 37 (New). The nanoparticle of claim 29, wherein polynucleotide-lipid inverted cylindrical micelles are arranged in a hexagonal lattice.

Claim 38 (New). The composition of claim 5, wherein said polynucleotide is surrounded by a monolayer of said lipid, and wherein polynucleotide-lipid inverted cylindrical micelles are arranged in a hexagonal lattice.

Claim 39 (New). The method of claim 10, wherein said polynucleotide is surrounded by a monolayer of said lipid, and wherein polynucleotide-lipid inverted cylindrical micelles are arranged in a hexagonal lattice.

Claim 40 (New). The method of claim 17, wherein said polynucleotide is surrounded by a monolayer of said lipid, and wherein polynucleotide-lipid inverted cylindrical micelles are arranged in a hexagonal lattice.

Claim 41 (New). The method of claim 21, wherein said polynucleotide of said nanoparticle is surrounded by a monolayer of said lipid, and wherein polynucleotide-lipid inverted cylindrical micelles are arranged in a hexagonal lattice.